

#18 2/20/03

TO: USPTO, Washington, D.C. 20231,
Febr. 3, 2003

Enclosed is an update Information Disclosure Statement, Form PTO-1449, with the requested corrected reference (the paper already provided earlier) to be listed in the Application 09/525,176 in response to the USPTO Office Action of 01/09/2003:

Savvas Vasileiadis and Zoe Ziaka; "Environmentally benign hydrocarbon processing applications of single and integrated permreactors", in Reaction Engineering for Pollution Prevention, pp. 247-304, Elsevier Science (2000), (Edited by M.A. Abraham and R.P. Hesketh).

Also the following originally listed article (3/14/2000) in the Information Disclosure Statement is provided with its corrected title:

M. Oertel et. al., "Steam reforming of natural gas with integrated hydrogen separation for hydrogen production", Chem. Eng. Technol., 10, pp. 248-255 (1987).


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Z. Ziaka

02/03/2003

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Substitute for Form PTO-1449 (Information Disclosure Statement)

U.S. PATENT DOCUMENTS

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- ~~4,423,022~~ 12/1983 ~~Albano et al.~~
- ~~4,713,234~~ 12/1987 ~~Weirich et al.~~
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- ~~5,637,259~~ 6/1997 ~~Galuszka et al.~~
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- ~~6,090,312~~ 7/2000 ~~Ziaka et al.~~
- ~~6,274,260~~ 8/2001 ~~Schuler et al.~~

OTHER REFERENCES

- ~~Alternative generation of H₂, CO and H₂, CO₂ mixtures from steam-carbon dioxide reforming of methane and the water gas shift with permeable (membrane) reactors, S. Vasileiadis et al., Chem. Eng. Comm., Vol. 176, pp.247-252, (1999).~~

- Environmentally benign hydrocarbon processing via single and integrated permreactors, permeators, S. Vasileiadis et al., in Reaction Engineering for Pollution Prevention, Elsevier Science Eds. (2000).
- Reactor-Membrane permeator cascade for enhanced recovery and production of H₂ and CO₂ from the catalytic methane steam reforming reaction, Z. Ziaka et al., Chem. Eng. Comm., Vol. 156, 161, (1997).
- Novel reactor-membrane permeator methane steam reforming process for enhanced recovery of H₂ and CO₂, Z. Ziaka et. al., 5th World Congress in Chemical Engineering, Symposium Series, San Diego, CA July (1996).
- Development of a novel oxidative palladium membrane reactor, N. Itoh et al., AICHE Symp. Ser., No. 268, Vol. 85, 10 (1989).
- Studies on palladium membrane reactor for dehydrogenation reaction, R. Zhao et al., Sep. Sci. & Tech., 25(13-15), 1473 (1990).
- Steam reforming of natural gas with integrated hydrogen separation for hydrogen production, M. Oertel et al., Chem. Eng. Technol., 10, 248 (1987).
- Polymer membrane reactors for enhanced hydrocarbon conversion and upgrading, S. Vasileiadis et al., Invention Disclosure Document #414880, marked 3/6/1997.